

Appln No. 10/803,380
Amdt date March 13, 2006
Reply to Office action of December 21, 2005

Amendments to the Specification:

On page 1, please delete the title and replace it with the following new title:

PLASMA DISPLAY APPARATUS WITH DIFFERING-SIZE PROTRUSION ELECTRODES

On page 5, please amend the paragraph starting at line 15 as follows:

FIGs. 3A and 3B show ~~FIG. 3 shows~~ a configuration of an electrode of a PDP according to an exemplary embodiments of the present invention.

On page 5, please amend the paragraph starting at line 19 as follows:

As shown in FIGs. ~~2 and 3~~ 2, 3A and 3B, the PDP includes two substrates 1 and 2 facing each other with a predetermined substrate gap 100 therebetween. A plurality of scan electrodes (Y electrodes) 10 and a plurality of sustain electrodes (X electrodes) 20 are alternately provided in the row direction on substrate 1. Protrusions 11 (11a and 11b) are respectively formed on the top and the bottom of scan electrode 10, and protrusions 21 (21a and 21b) are respectively formed on the top and the bottom of sustain electrode 20. Protrusions 11 and 21 of scan and sustain electrodes 10 and 20 operate for a discharge. Top protrusion 11a of scan electrode 10 and bottom protrusion 21b of sustain electrode 20 face each other with a predetermined protrusion gap 51 therebetween, and bottom protrusion 11b of scan electrode 10 and top protrusion 21a of sustain electrode 20 face each other with a predetermined protrusion gap 52 therebetween. Protrusions 11 and 21 are made of a transparent dielectric material including ITO (indium tin oxide). Transparent dielectric layer 30 and protection layer 40 are formed on scan and sustain electrodes 10 and 20 and protrusions 11 and 21 to cover substrate 1.

On page 6, please amend the paragraph starting at line 21 as follows:

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Referring to FIGs. ~~2 and 3~~ 2, 3A and 3B, top and bottom protrusions 11a and 11b of scan electrode 10 are alternately formed, and top and bottom protrusions 21a and 21b of sustain electrode 20 are alternately formed. R, G, and B phosphors are applied to three discharge cells that are adjacent in a triangular format, and R, G, and B discharge cells 140R, 140G, and 140B form single pixel 140, which is referred to as a delta structure. In addition, top protrusions 11a and 21a and bottom protrusions 11b and 21b can be provided in the column direction and in parallel. R, G, and B phosphors are applied to three discharge cells that are adjacent in the row direction, and the R, G, and B discharge cells form a single pixel, which is referred to as a stripe structure.

On page 7, please amend the paragraph starting at line 8 as follows:

As shown in FIGs. 2 and 3 3A, a column-directional length of protrusion 11 formed at scan electrode 10 is longer than a column-directional length of protrusion 21 formed at sustain electrode 20. Address discharges occur between address electrodes 110 and scan electrodes 10 in the address interval. In the first exemplary embodiment, an area where address and scan electrodes 110 and 10 face each other increases to stably generate an address discharge. As shown in FIG. 1, substantially 2/3 of the total light emission is generated at the cathode in the sustain interval. Therefore, when a voltage applied to scan electrode 10 is less than a voltage applied to sustain electrode 20 in the sustain interval, that is, when scan electrode 10 operates as a cathode with respect to sustain electrode 20, light emission is more effectively performed because the length of protrusion 11 of scan electrode 10 is long.

On page 7, please amend the paragraph starting at line 20 as follows:

The column-directional length of protrusion 11 of scan electrode 10 is increased in the exemplary embodiment, and further, a width of protrusion 11 can be greater than that of

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protrusion 22 of sustain electrode 20 (FIG. 3B), and an area of protrusion 11 can be greater than that of protrusion 21.